

[illegible]

1. In a ball nut having at least one internal bearing race with a first end and a second end, and a crossover passage for connecting the first end and the second end to form a continuous recirculating path for a plurality of ball bearings, the improvement comprising:

at least two eyelets, each eyelet having a helix passage for receiving a plurality of ball bearings formed in a flange end and a crossover passage formed in the flange end, the crossover passage in communication with the helix passage for returning the plurality of ball bearings, wherein assembling the two eyelets in flange-to-flange relationship with respect to one another defines at least one raceway having a single recirculating rotational path for receiving the plurality of ball bearings.

6 at least two eyelets, each eyelet having a helix passage for
7 receiving a plurality of ball bearings formed in a flange end and a
8 crossover passage formed in the flange end, the crossover passage in
9 communication with the helix passage for returning the plurality of ball
10 bearings, wherein assembling the two eyelets in flange-to-flange
11 relationship with respect to one another defines at least one raceway
12 having a single recirculating rotational path for receiving the plurality of
13 ball bearings.

1 2. The ball nut of claim 1 further comprising:
2 the assembled eyelets overmolded to provide a unitary ball
3 nut.

1 3. The ball nut of claim 1 wherein the eyelets are identical
2 to one another.

1 4. The ball nut of claim 1 further comprising:
2 the eyelet drawn and coined to form the helix passage and
3 crossover passage in the flange end of the eyelet.

1 5. The ball nut of claim 1 further comprising:
2 a lock member for temporarily holding the two eyelets with
3 respect to one another.

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1 9. The ball nut of claim 1 wherein the eyelet is formed of a
2 metal material selected from a group including steel, hardened steel,
3 melonited steel, heat treated steel, stainless steel, spherodized stainless
4 steel, annealed stainless steel, and heat treated stainless steel.

why?

12. The ball nut of claim 11 further comprising:

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1 18. In a ball nut having at least one internal bearing race
2 with a first end and a second end, and a crossover passage for

3 connecting the first end and the second end to form a continuous
4 recirculating path for a plurality of ball bearings, the improvement
5 comprising:

6 a flat metal strip having at least one groove formed therein
7 for receiving a plurality of ball bearings, the strip rolled to a
8 predetermined diameter and lead with the at least one groove facing
9 radially inward; and

10 a carrier for receiving the rolled strip inserted therein, the
11 carrier having a crossover passage formed therein to define at least one
12 raceway having at least one recirculating rotational path for receiving the
13 plurality of ball bearings.

1 19. The ball nut of claim 18 further comprising:
2 the flat metal strip having a coined groove.

1 20. The ball nut of claim 18 further comprising:
2 the flat metal strip having a through rolled groove.

1 21. The ball nut of claim 18 wherein the flat metal strip is
2 formed of 410 martinsitic stainless steel.

1 22. The ball nut of claim 18 further comprising:
2 the carrier overmolded after insertion of the rolled strip.

1 23. The ball nut of claim 18 further comprising:
2 the strip having a roll formed groove therein defining a race
3 for receiving the plurality of ball bearings, the strip formed of a constant
4 thickness metal material.

1 24. The ball nut of claim 23 further comprising:

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1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

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